

Remarks

Reconsideration of this Application is respectfully requested.

Upon entry of the foregoing amendment, claims 1-11 and 13-21 are pending in the application, with claims 1, 13-16, and 21 being the independent claims. Claim 16 is amended herein. These changes are believed to introduce no new matter, and their entry is respectfully requested.

Based on the above amendment and the following remarks, Applicants respectfully request that the Examiner reconsider all outstanding objections and rejections and that they be withdrawn.

Rejections under 35 U.S.C. § 102

The Examiner rejected claim 15 under 35 U.S.C. 102(e) as being anticipated by Dabell (U.S. Patent 6, 621,862). Applicants have carefully considered the Examiner's comments, but, for the reasons set forth herein, respectfully traverse.

Independent claim 15 recites, among other features, "generating a clock signal for each of the multi-gigabit analog information signals from each of the respective multi-gigabit analog information signals". In rejecting claim 15, the Examiner refers to x'(t) 230 in FIG. 2 of Dabell as allegedly corresponding to this feature of claim 15. However, x'(t) 230, as described in Dabell (Col. 3, lines 27-32), represents a distorted signal that

results from the transmission of a signal $x(t)$ 210 on a link 130. $x'(t)$ 230 is therefore not a clock signal and does not correspond to this feature of claim 15.

Independent claim 15 further recites, among other features, "sampling each of the multi-gigabit analog information signals according to the respective clock signals". In rejecting claim 15, the Examiner refers to element 220 in FIG. 2 of Dabell as allegedly performing this feature of claim 15. However, element 220, as described in Dabell (Col. 3, lines 26-28), represents a channel impulse response, and therefore does not perform sampling as recited in this sampling feature of claim 15. The Examiner further concedes this in paragraph 5 a) of the Office Action.

For at least these reasons, Dabell does not teach or suggest each and every feature of independent claim 15. Claim 15 is therefore patentable over Dabell. Reconsideration and withdrawal of the rejection of claim 15 is respectfully requested.

Rejections under 35 U.S.C. § 103

The Examiner rejected claims 1-4, 11, 13, 14, and 16-19 under 35 U.S.C. 103(a) as being unpatentable over Dabell (U.S. Patent 6,621,862) in view of Mazor (U.S. Patent 5,235,671). Applicants have carefully considered the Examiner's comments, but, for the reasons set forth herein, respectfully traverse.

Independent claim 1 recites, among other features, "sampling a multi-gigabit analog information signal, thereby generating analog samples" and "performing an equalizing process on the analog samples". In rejecting claim 1, the Examiner claims that Dabell in combination with Mazor allegedly teach the above noted features of claim 1. Applicants emphasize that the equalization method of Dabell is performed entirely in

the digital domain. As illustrated in FIG. 3 of Dabell, input signal 141 is converted from analog to digital using analog-digital converter 321 before equalization. Further, Dabell does not provide any motivation or suggestion for performing the equalization method on analog samples. Accordingly, Dabell does not teach or suggest "performing an equalizing process on the analog samples" as recited in claim 1.

The Examiner further concedes, in the rejection of claim 1, that Dabell does not teach sampling a multi-gigabit analog information signal and generating analog samples. Additionally, the Examiner does not allege and Applicants found no reference or suggestion that Mazor teaches "sampling a multi-gigabit analog information signal". Accordingly, neither Dabell nor Mazor teaches or suggests "sampling a multi-gigabit analog information signal" as recited in claim 1. Applicants further contend that the system of Mazor, contrary to the Examiner's assertion, does not fall within the same field of endeavor as Dabell. Mazor is directed to speech encoding and not to adaptive equalization. Accordingly, Applicants submit that a *prima facie* case of obviousness has not been established in rejecting claim 1 because there is no motivation to combine the cited references.

For at least the reasons provided above, independent claim 1 is patentable over Dabell and Mazor. Reconsideration and withdrawal of the rejection of claim 1 is respectfully requested.

Independent claim 16 has been amended herein to recite similar features as recited in claim 1. For at least the reasons provided above with respect to claim 1, claim 16, as amended, is patentable over Dabell and Mazor. Reconsideration and withdrawal of the rejection of claim 16 is respectfully requested.

Independent claim 14 recites, among other features, "measuring an equalization quality of the samples from one of the plurality of phases" and "equalizing the samples from each of the phases based on the measured equalization of the one phase". In rejecting claim 14, the Examiner points to FIG. 4 of Dabell, which as discussed in Dabell beginning at column 4, line 55, illustrates an equalization controller in which each of a plurality input signals 141-144 has a dedicated coefficient calculated (using coefficient calculator 440) for application in a respective signal filter 341-344, by individually subjecting samples of input signals 141-144 to the same tap coefficient algorithm (column 4, lines 5-8). Accordingly, equalization controller 330 does not teach or suggest "measuring an equalization quality of the samples from one of the plurality of phases" and "equalizing the samples from each of the phases based on the measured equalization of the one phase".

For at least the reasons provided above, Dabell and Mazor do not teach or suggest at least the above recited features of claim 14. Claim 14 is therefore patentable over Dabell and Mazor. Reconsideration and withdrawal of the rejection of claim 14 is respectfully requested.

In paragraph 5 of the Office Action, the Examiner rejected independent claim 13 over Dabell and Mazor, but did not subsequently provide any language for supporting this rejection. Independent claim 13 recites similar features as discussed above with reference to claim 14. Claim 13 is therefore patentable over Dabell and Mazor. Reconsideration and withdrawal of the rejection of claim 13 is respectfully requested.

Claims 2-4 and 11 depend, either directly or indirectly, from independent claim 1. For at least the reasons provided above with respect to claim 1, claims 2-4 and 11 are

patentable over Dabell and Mazor. Reconsideration and withdrawal of the rejection of claims 2-4 and 11 is respectfully requested.

Claims 17-19 depend, either directly or indirectly, from independent claim 16. For at least the reasons provided above with respect to claim 16, claims 17-19 are patentable over Dabell and Mazor. Reconsideration and withdrawal of the rejection of claims 17-19 is respectfully requested.

The Examiner rejected claims 13 under 35 U.S.C. 103(a) as being unpatentable over Dabell (U.S. Patent 6,621,862). Applicants have carefully considered the Examiner's comments, but, for the reasons set forth herein, respectfully traverse.

Independent claim 13 recites, among other features, "sampling the multi-gigabit analog information signal at a plurality of phases". In paragraph 5 a) of the Office Action, the Examiner concedes that Dabell does not teach sampling a multi-gigabit analog information signal. Accordingly, Dabell does not teach at least this feature of independent claim 13. Claim 13 is therefore patentable over Dabell. Reconsideration and withdrawal of the rejection of claim 13 is respectfully requested.

The Examiner rejected claim 4 under 35 U.S.C. 103(a) as being unpatentable over Dabell (U.S. Patent 6,621,862) in view of Mazor (U.S. Patent 5,235,671), further in view of alleged applicant admitted prior art. Applicants have carefully considered the Examiner's comments, but, for the reasons set forth herein, respectfully traverse.

Claim 4 depends indirectly from independent claim 1. Claim 1 has been distinguished above over Dabell and Mazor. The alleged applicant admitted prior art

does not overcome the deficiencies of Dabell and Mazor as described above. Claim 4 is therefore patentable over Dabell, Mazor, and the alleged applicant admitted prior art. Reconsideration and withdrawal of the rejection of claim 4 is respectfully requested.

The Examiner rejected claim 21 under 35 U.S.C. 103(a) as being unpatentable over Shimomura et al. (U.S. Patent 6,404,525). Applicants have carefully considered the Examiner's comments, but, for the reasons set forth herein, respectfully traverse.

Independent claim 21 recites, among other features, "at least one interface board...including a plurality of receivers...each said receiver including an adaptive equalizer". In rejecting claim 21, the Examiner refers to signal deterioration monitor 14 of Shimomura et al. as being equivalent to an adaptive equalizer as recited in claim 21. However, as described in Shimomura et al., signal deterioration monitor 14 simply monitors the quality of individual optical signals and performs no function that is similar or that can be considered as equivalent to equalization as recited in claim 21.

Accordingly, Shimomura et al. does not teach or suggest at least this feature of independent claim 21. Claim 21 is therefore patentable over Shimomura et al. Reconsideration and withdrawal of the rejection of claim 21 is respectfully requested.

Conclusion

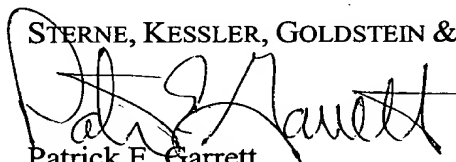
All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding objections and rejections and that they be

withdrawn. Applicants believe that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment and Reply is respectfully requested.

Respectfully submitted,

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Date: 1/30/06

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